

Claim Amendments

Claims 1-8 (canceled)

Claim 9 (currently amended): A method of forming a joint between a first body and a second body comprising the steps of:

preparing a slurry made of a preceramic polymer and filler material by
evacuating an environment and then adding in an inert atmosphere;

applying the slurry to a male tapered area of a first cylindrical body of a non-oxide ceramic and with a taper angle that is less than a female taper angle of a second cylindrical body;

applying the slurry to the female tapered area of a second cylindrical body of a non-oxide ceramic;

aligning the tapered area of the first cylindrical body with the tapered area of the second cylindrical body so they maintain a joint thickness of less than 250 microns~~are in~~
contact; and

heating the first cylindrical body and the second cylindrical body with the slurry in the range from 850 degrees centigrade up to 1400 degrees centigrade which forms a joint.

Claim 10 (previously presented): A method as described in Claim 9 wherein the applying the slurry step includes the step of applying a slurry of silicon carbide powder having a particle size between 20 nanometers and 35 microns to the first cylindrical body made of silicon carbide.

Claim 11 (previously presented): A method as described in Claim 10 wherein the applying the slurry step includes the step of applying a slurry of silicon carbide powder having at least two distinct particle sizes.